

UNIVERSITY OF CALIFORNIA

AGRICULTURAL EXPERIMENT STATION.

BULLETIN NO. 62.

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Distribution of Cuttings and Scions.

The Standard Orchard of the University contains upward of 500 named varieties of fruit. The soil is not well adapted to the growth of fruit trees, nor is the bay climate of Berkeley calculated to foster the production of handsome, high-colored fruit specimens, except of apricots, which color better here than in the interior. Notwithstanding the disadvantages of soil and climate, we have, by the use of barnyard manure, which is abundant in the neighborhood, and by careful pruning and cultivation, succeeded in growing fruit (especially late apples and pears) which, when shown in variety at the leading fairs, has received the commendation of the expert judges and the public.

The Standard Orchard of the University is maintained not as a commercial enterprise, but to serve several purposes. First, that of illustrating the instruction which is given in horticulture; second, to serve as a means of identifying fruit specimens which are sent to us from all parts of the State for that purpose; third, as a source from which any citizen of the State can obtain scions or bud-sticks either for the purpose of testing varieties under the conditions prevailing in his locality or to insert in bearing trees to establish the identity of unnamed varieties which he may have. There is such variation in the characteristics of varieties grown under different conditions in California that often we can but approximately identify a variety and send scions of that variety, true to name, for the grower to fruit for himself and thus compare the two when grown under the same conditions. In all these directions the Standard Orchard at Berkeley is proving of value to the fruit interests of the State.

The accurate records which have been kept of the tree growth and fruitage of the different varieties serve as a trustworthy guide for planting in regions adjacent to the bay and coast, where the climate in its main features most resemble that of Berkeley. The forthcoming report of the College of Agriculture for 1886 will contain tabulated results of several years' observations by Mr. W. G. Klee, from which the reader may learn what varieties promise well and those which are likely to be worthless in the section of the coast region to which allusion is made. From these observations it is also possible to indicate certain varieties which have good points, but evidently need a warmer locality to develop full quality. Such varieties are recommended for trial at greater distance from the coast.

Terms.—Orders may be sent for few or many varieties, as may be desired. We cannot furnish large quantities of a single variety, because the object is to test varieties and not to furnish material for commercial propagation. Packages of scions are forwarded by mail, and applicants are required to send 10 cents for each dozen ordered, to defray expenses of packing and postage. Postal notes, payable at the Berkeley postoffice, are requested to be sent in lieu of stamps whenever practicable. Any surplus left after filling orders as far as possible will be returned to the senders, deducting letter postage.

The limits of an announcement of this kind prevent a full enumeration of varieties which can be furnished. We select, therefore, such kinds as seem to us most promising and least known to growers. Those who may desire other varieties than those named may apply for them, and they will be furnished if we have them.

Apricots.

Observations on the growth and bearing of our collection of apricots for several years warrant the naming of several varieties as well adapted to bay and coast climates in this part of the State: Blenheim or Shipley medium size, color fine, early, very productive; Beauege, (?), very handsome fruit of Blenheim type, most beautiful golden yellow, painted with brightest red, rich quality, a *clingstone*, ripening here the middle of July; Orange, possibly identical with the Royal, but grown here, has much higher color, a good bearer and early, but the tree is only a moderate grower; Sardinian, a small apricot, possibly valuable because of its earliness.

Apricots not altogether satisfactory here but likely to be valuable in warmer parts of the State: Alberge de Montgamet, large freestone, pitting very readily, color orange, flesh firm and rich; St. Ambroise, large, fine-looking fruit and tree large and vigorous; Kaisha, from Syria, pale colored, excellent flavor and quality and very juicy; Canino Grosso, fine, large fruit of Hemskirk type; De Coulorge, also fine fruit of similar type.

Apples.

The following varieties include the most promising of those in our collection which are not generally known in this State:

Benoni; shaded and striped with red; midsummer; for table and market; very good to best.

McCloud's Family; yellow; striped with dull red; late summer; very good.

Fanny; crimson red; midsummer; very good.

Julian; whitish; striped with rich red; very good.

Red Canada; beautiful red; winter; very good.

Mother; splashed and marbled with red; winter.

McAfee's Nonsuch; striped and splashed with red; winter.

McLellan; red; beautiful; very good to best.

Dalonega; striped and splashed on yellow ground.

Green Sweet; greenish yellow; very sweet.

Cardinal; yellow; middle of July; tree a fair grower; but yield here rather small.

Count Orloff; pale yellow; rather a small bearer; but good quality and good keeper.

Grimes' Golden Pippin; yellow; a fair grower; middle of September.

Disharoon; yellowish; dull red or russet cheek; a strong grower and healthy tree; fruit good and a good keeper; October and November.

Duckett; yellowish; striped and splashed with red; winter; tree fair grower and fruit good.

Equinety; greenish yellow; covered and splashed with rich red; a fair grower and good bearer; fruit good, and keeps until March.

Rome Beauty; shaded and striped with red; a good grower and bearer; fruit good, keeping till April.

Dutch Mignonne; yellow striped and splashed with red; a fair grower and good bearer; fruit good, keeping until March and April.

Canada Reinette; large russet; a fair grower; fair bearer; quality good, and a fair keeper; ripens in September.

Crab Apples.—The University collection of crab apples shown at the fairs attracted much attention by their great variety in form and color. We can furnish scions of the following varieties:

Oblong Crab, Montreal, Chicago, Coral, Red Siberian, Yellow Siberian, Currant, Transcendent, Large Yellow, Ringo, Malus Karda, Hewe's Virginia, Lady Crab, Large Red and Hysops.

Pears.

Our collection of pears is very good, and the quality of many of our winter fruits, especially, excellent; but the presence of the summer fogs has the tendency to give them a russet surface. The same varieties grown farther from the coast will present a much handsomer appearance. The collections shown at this year's State and Mechanics' Institute Fairs were highly commended. The spraying of the orchard with the sulphide-whale-oil soap solution produced a marked effect upon the black fungus, and gave the trees and the fruit a much better appearance.

In connection with the descriptions of the following varieties, of which scions can be had we give the time of ripening of this locality, which, compared with the greater part of the State, is very late. Those starred (*) have proved exempt from the black fungus, or nearly so, every year since fruiting here:

Annie Ogereau; very handsome pear; beginning of August.

Ott; middle of August, before Seckel; small, but delicious.

Duchesse Precocce; above medium; a steady bearer; fair quality; end of July.

*Doyenne Robin; medium to large; beginning of September; good bearer; fair quality; excellent keeper.

Dr. Reedér; small, but of the highest quality; end of September, beginning of October, after Seckel.

*Paradise d'Automne; September and October; medium size; very good.

*Marie Louise d'Uccles; end of September; small grower, but a large and constant bearer; fruit large; good quality.

*Sheldon; large; end of September; good.

*Conseller de la Cour; large; regular bearer; good; middle of October.

*Jalousie Fontenay Vendee; medium; good bearer; resembles in taste Beurre Gris, of Europe.

*Pitaston Duchesse d'Angouleme; a pear entirely different from the ordinary Duchesse; is later; large to very large; so far a shy bearer; good.

*Baronne de Mello; medium; regular bearer; November; good.

Augustus Dana; large; November; very good; so far a shy bearer.

*Beurre Gris d'hiver Nouveau (new gray winter pear); a variety, we are told, which was formerly cultivated considerably in Santa Clara, but now not met with; large to very large; tree a good regular bearer; quality very good; November and December.

*Md. Lariol de Barny; large, good bearer; good (resembles Emil d'Heyst).

*Jaminette; above medium size; November and December; excellent keeper; good (extremely sweet).

Fondante de Noel; above medium; very handsome; December; good.

*Jones Seedling; small; a good, steady bearer; October; good.

Duhamel de Monceau; December; above medium; very good; tree a poor grower.

*Doyenne d'Alencon; late; ripening January 1; good grower and healthy; yield fair; quality good and a good keeper.

*Beurre de l'Assomption; middle of August; fair grower and healthy; yield good; fruit handsome and large, but not a very good keeper.

Forelle or German Trout Pear; a fall pear of great beauty.

*Louis Vilmorin; large pear resembling Clairgeau. Not adapted to coast climate; should be tried elsewhere; tree healthy and yield fair.

*De Tongres; very handsome; highly colored; a good keeper; fruit shown at the fairs attracted much attention; tree healthy and a good grower. Ripens here October 1st.

Plums.

Scions of the following varieties can be furnished:

Ontario; the best early plum we have; green; above medium; quality fair.

Black Morocco; small, blue plum; very early; cracks badly in this locality.

Lawrence's Favorite; seedling of green gage; resembling it, but larger.

Wangenheim Prune; resembles German prune, but bears better here.

Red Magnamboun; a good plum; rather large; freestone.

Victoria; handsome, large; flesh yellow and rather coarse, but sweet; tree vigorous and healthy.

Lombard; a popular Eastern variety; medium size; violet-red; flesh juicy, but not rich.

Reine Claude de Bavay; one of the best varieties, which should be better known here; very late; greenish-yellow; flesh juicy, melting and rich.

St. Lawrence; rather large; dark-purple with light bloom; yellow flesh; sweet and rich.

McLaughlin; one of the best; large; skin thin, yellow, dotted with red; flesh yellow; very sweet and luscious.

Prince Englebert; a good variety; tree very productive.

Goliath; a large, handsome plum; deep red to purple.

Copper Plum; an old variety; tree very productive, vigorous and hardy; fruit medium size; late; should be better known.

St. Martin's Quetsche; a late prune from Germany; tree hardy and apt to overbear; fruit medium size; pale-yellow; hangs long on the tree; flesh yellow; freestone.

Peters' Yellow Gage; very good here; tree a strong grower; flesh yellow, juicy and sugary.

Prince of Wales; an old variety; very satisfactory in this locality.

Orange; very large and handsome; yellow; tree vigorous and productive.

Belgian Purple, rather large, and deep purple; handsome; tree strong and productive.

Drap d'or d'Esperen; fruit large; golden-yellow; flesh light-yellow and good quality.

Ives' Autumn; an excellent plum; yellow with red dots; large.

Royal de Tours; large; bright-red to violet; flesh high flavored; juicy; very good.

Autumn Compote; large; whitish-yellow, with crimson in the sun; flesh yellow; very good.

Diapree Rouge; tree rather a poor grower, but fruit large, reddish-purple; flesh pale-green, juicy and melting.

Reine Claude Rouge; very good to best; is somewhat known in this State.

Denniston's Superb; an excellent variety; tree a strong grower; healthy, hardy and productive; fruit round and large; color pale-yellow.

Mulberries.

The mulberry plantation on the University grounds has made a fine growth during the last year, and a few cuttings can be had of each of the following kinds: Downing's Everbearing, *Morus Mullicaulis*, Russian Mulberry, *Morus Alba*, and the Japanese varieties, Lhoo and Nagasaki. The last two have made especially fine growth.

Grapevines.

The climate of Berkeley is so unsuitable to the growth of the vine that no attempt is made by us to maintain a complete collection, which, in the absence of fruit, would offer comparatively little interest. Moreover, the existence of the phylloxera on the grounds renders any extension of the culture of non-resistant vines inexpedient, the small block or vineyard being maintained only for the purpose of experimentation in relation to the repression of the pest. We have, however, endeavored to secure as complete a representation as possible

of the several wild stocks that possess, to a greater or less extent, the power of resisting the inroads of the insect, as stocks for grafting, to be used in localities already infested. This collection now embraces the following species, of which cuttings will be sent to those desiring to test them, on the same terms as other scions:

American Resistant Grapevines.

- Vitis Arizonica; the wild Arizonian vine.
- V. Riparia; the Riverside grape of the Mississippi valley.
- V. Californica; the wild grapevine of California.
- V. Aestivalis; the summer or upland grape of the East.
- V. Candicans; the Mustang grape of Texas.
- V. Cinerea; an upland grape related to the Aestivalis.
- V. Cordifolia; the Southern Riverside grape.
- V. Vulpina; the Southern Muscadine, Scuppernon, etc.
- V. Monticola; the mountain grape of Colorado etc.
- V. Neo-Mexicana; a wild grade of New Mexico
- V. Rupestris; the rock grape of Missouri.

Asiatic Vines, Presumably Resistant.

- V. Romaneti; white; Eastern Asia.
- V. Romaneti; red; Eastern Asia.
- V. Opiman; from Cashmere.
- V. Spino-Vitus Davidii, China.
- V. Katchebourie.

Huasco Raisin Grape.—This variety, imported from Chile, has been distributed by us for some years and is now well spread in the State. We can still furnish cuttings of the variety in lots of 10 each, for experimental growing. The cuttings are, of course, carefully disinfected before shipment, although the vines have never become infected. Reports regarding its merits as a raisin grape vary, although it appears to be a more reliable bearer than the Muscat, which it nearly resembles.

Address applications to

E. W. HILGARD.

University of California, Berkeley, Cal., Dec. 29, 1886.